

THE IDENTITY OF THE LINNAEAN GNAPHALIUM  
PLANTAGINIFOLIUM.

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PERHAPS none of the recent segregations among American flowering plants has been more surprising in extent and interest than the division of *Antennaria plantaginea*, R. Br. (*A. plantaginifolia*, Hook.). Long regarded as a single variable species, this polymorphous plant, familiar in our spring flora, has, upon close scrutiny, fallen into many rather well-marked and tolerably distinct species. Thanks to the observations and publications of Prof. Greene and Messrs. Fernald, Rydberg, and E. Nelson, the characteristics and affinities of the newly recognized forms are already pretty well known, yet, as in all such cases, the actual identity of the original type must be settled before the subsequently described segregates can have a fixed or definite status. In this instance the central species and historic type of the group rests upon the Linnaean *Gnaphalium plantaginifolium*, published in the *Species Plantarum* in 1753, and since the subdivision, no one has, I believe, been in a position to do more than guess at the identity of the Linnaean type. This has been due in part to the brevity and general nature of the original description, but chiefly to the lack of authenticated specimens upon this side of the Atlantic where the chief knowledge of the segregates exists. The first supposition regarding the Linnaean type was that of Prof. Greene, who regarded it as probably the plant (with leaves glabrous above) which he later described as *A. arnoglossa*. Mr. Fernald, on the other hand, regarded it as the commonest of the large-leaved *Antennarias*, a species which has a white flocculent pubescence upon the upper, as well as a denser, firmer pubescence on the lower surface of the leaves. This plant has been described by Prof. Greene as *A. decipiens*.

Last September I had an opportunity, while in London, to examine the extant material of the original *Gnaphalium plantaginifolium*, and found it to be a mixture. To make clear the relation of its elements, it will be best to reproduce the treatment in the first edition of the *Species Plantarum*. It is as follows:

*Gnaphalium* caule simplissimo, foliis radicalibus ovatis maximis, sarmen-  
tis procumbentibus.



*Gnaphalium stolonibus reptatricibus longissimis, foliis ovatis, caule capitato.* *Gron. virg.* 95.

*Gnaphalium, plantaginis folio, virginianum.* *Pluk. Alm.* 171, t. 348, f. 9. *Habitat in Virginia.* 2.

*Habitus omnino praecedentis; sed Folia radicalia pollice majora, ovalia. Vidi solam feminiam; an praecedentis sola varietas?*

From an examination of this description it will be seen that the species rests upon three plants, namely, 1) the plant of Clayton, described by Gronovius, whose words, "*Gnaphalium stolonibus reptatricibus,*" etc., are quoted by Linnaeus; 2) the plant of Plukenet, mentioned in the *Almagestum* as "*Gnaphalium plantaginis folio,*" etc., and crudely figured in the same work, t. 348, f. 9; 3) the plant which Linnaeus himself examined and which suggested the words in the first lines, "*Gnaphalium caule simplissimo, foliis radicalibus ovatis maximis, sarmentis procumbentibus,*" also the closing expressions regarding the habit.

Clayton's plant, definitely cited by Gronovius<sup>1</sup> as no. 287 was readily found in the herbarium of the British Museum of Natural History and proved to be neither species associated by recent American writers with the Linnaean *Gnaphalium plantaginifolium*. With solitary large terminal head and elongated slender stolons, in length exceeding the flowering stem, it was clearly the southern *A. solitaria*, Rydberg. The Plukenet plant was sought in vain even with the efficient assistance of Messrs. Carruthers, Hierns, and E. G. Baker, to whose courteous aid I am much indebted. As the fullest, if not the only, set of Plukenet plants is preserved at the British Museum, it is probable that as this plant is lacking there it is not extant. There is no evidence, as I am informed by Mr. Carruthers, that Linnaeus saw this plant of Plukenet, and there is positive proof that he did not see the plant of Clayton, for that is staminate, while Linnaeus expressly says that he had seen only the pistillate form. To learn just what Linnaeus had seen I examined the representation of *Gnaphalium* in his own herbarium, preserved in the rooms of the Linnaean Society of London, and there found a sheet of *Gnaphalium plantaginifolium*, clearly labeled in Linnaeus' own hand, but unfortunately without any indication of the collector. It bears two specimens evidently alike and both pistillate. Moreover, through the partial loss of their large lower leaves they present no slight

<sup>1</sup> *Flor. Virg.* ed. 1, 95.



habital resemblance to *Gnaphalium dioicum*. There can, therefore, be no reasonable doubt that these were the specimens which furnished to Linnaeus the characteristics recorded in the uncompiled (i. e., first and last) portions of his description and which, therefore, must be regarded as the types of the species. These specimens are precisely *A. plantaginea* as interpreted by Mr. Fernald (the *A. decipiens* of Prof. Greene). Regarding the identity of the Plukenet plant, there is certainly nothing either in the description or figure to prove it different from the plant of Linnaeus. It was, from the figure, surely not the same as the plant of Clayton, which has much longer stolons and obovate leaves, rounded, not pointed, at the apex. However, in comparison with the plant which was actually examined by Linnaeus and which seems to have furnished him the information contained in the original (uncompiled) portions of his description, neither the plant of Clayton, which he did not see, nor the plant of Plukenet, which he probably did not see, can have any great weight in determining the identity of the species. The brief pre-Linnaean descriptions of these two plants are cited by Linnaeus after his own technical description and merely as supposed synonyms. The fact that at least one of these quoted expressions proves not to be synonymous, certainly cannot invalidate or alter the species as conceived and described by Linnaeus from the material at his command.

GRAY HERBARIUM.

## MONARDA FISTULOSA AND ITS ALLIES.

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THE plants which have long been referred to *Monarda fistulosa* have recently been treated in very dissimilar ways by different authors. Dr. Gray in the Synoptical Flora regarded them all as phases of one polymorphous species, *M. fistulosa*, L., recognizing besides *M. fistulosa* three varieties, var. *rubra* (*M. purpurea*, Pursh), var. *media* (*M. media*, Willd.), and var. *mollis*, Benth. (*M. mollis*, L.). In the Illustrated Flora, however, Dr. Britton recognizes three species, *M. fistulosa*, L. (including *M. mollis*, L.), *M. media*, Willd. (*M. fistulosa*, var. *rubra*, Gray), and *M. scabra*, Beck (including *M. fistulosa*, var. *mollis*, Benth., in part). In view of these divergent